

Statement of Basis

for the DRAFT CAAPP Permit for:

Source Name:

BP Products North America, Inc. - Wood River Terminal

Statement of Basis No.: 95060048-1405

I.D. No.: 119115AAY

Permit No.: 95060048

Date Prepared: May 24, 2014

Permitting Authority:

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
217/785-1705

This Statement of Basis is being provided to USEPA and any interested parties as required by Section 39.5(8)(b) of the Illinois Environmental Protection Act.

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PREFACE

Reason For This Document

This document is a requirement of the permitting authority in accordance with 502(a) of the Clean Air Act, 40 CFR 70.7(a)(5), and Section 39.5(8)(b) of the Illinois Environmental Protection Act. Section 39.5(8)(b) of the Illinois Environmental Protection Act states the following:

"The Agency shall prepare a statement that sets forth the legal and factual basis for the Draft CAAPP permit conditions, including references to the applicable statutory or regulatory provisions."

Purpose Of This Document

The purpose of this Statement of Basis is to provide discussion regarding the development of this Draft CAAPP Permit. This document would also provide the permitting authority, the public, the source, and the USEPA with the applicability and technical matters that form the basis of the Draft CAAPP Permit.

Summary Of Historical Actions Leading Up To Today's Permitting Action

Since the last Renewal CAAPP Permit issued on 05/24/2002, the source has not been issued any modifications or amendments.

Limitations

This Statement of Basis is not enforceable and only sets forth the legal and factual basis for the Draft CAAPP Permit Conditions (Chapters I and II). Chapter III contains supplemental material that would assist in educating interested parties about this source and the Draft CAAPP Permit. The Statement of Basis does not shield the source from enforcement actions or its responsibility to comply with existing or future applicable regulations. Nor does the Statement of Basis constitute a defense to a violation of the Federal Clean Air Act or the Illinois Environmental Protection Act including implementing regulations.

This document does not purport to establish policy or guidance.

INTRODUCTION

The Clean Air Act Permit Program (CAAPP) is the operating permit program established in Illinois for major stationary sources as required by Title V of the federal Clean Air Act and Section 39.5 of the Illinois Environmental Protection Act. The Title V Permit Program (CAAPP) is the primary mechanism to apply the various air pollution control requirements established by the Clean Air Act to major sources, defined in accordance with Title V of the Clean Air Act. The Draft CAAPP Permit contains conditions identifying the state and federal applicable requirements that apply to the source. The Draft CAAPP Permit also establishes the necessary monitoring and compliance demonstrations. The source must implement this monitoring to demonstrate that the source is operating in accordance with the applicable requirements of the permit. The Draft CAAPP Permit identifies all applicable requirements for the various emission units as well as establishes detailed provisions for testing, monitoring, recordkeeping, and reporting to demonstrate compliance with the Clean Air Act. Further explanations of the specific provisions of the Draft CAAPP Permit are contained in the following Chapters of this Statement of Basis.

The Illinois EPA has focused in on key elements of the permit that relate to the requirements of the CAAPP Program:

- Emissions of:
 - VOM
 - HAP
- Emission units:
 - Internal Floating Roof Storage Tanks
 - External Floating Roof Storage Tanks
 - Fixed Roof Storage Tanks
 - Truck Loading Racks
- The area surrounding BP Products North America, Inc. -Wood River Terminal has the potential for environmental justice ("EJ") concerns. Therefore, the Illinois EPA has taken a careful review of the monitoring in the DRAFT CAAPP permit and has provided for public input. Given the nature of the source to be a gasoline distribution facility, the Draft CAAPP permit requires the following. A discussion of this monitoring can be found in Section 3.1 of this Statement of Basis.
 - Monthly Leak Inspection
 - Routine Inspection of Floating Roof Seals Every 6 to 12 Month
 - Complete Inspection of Empty Tank No More Than Every 10 Years

In addition, the Illinois EPA has committed substantial resources and effort in the development of an acceptable Statement of Basis (this document) that would meet the expectations of USEPA, Region 5. As a result, this document contains discussions that address applicability determinations, periodic monitoring, streamlining, prompt reporting, and SSM authorizations (as necessary). These discussions involve, where necessary, a brief description and justification for the resulting conditions and terms in this Draft CAAPP Permit. This document begins by discussing the legal basis for the contents of the Draft CAAPP Permit, moves into the factual description of the permit, and ends with supplemental information that has been provided to further assist with the understanding of the background and genesis of the permit content.

It is Illinois EPA's preliminary determination that this source's Permit Application meets the standards for issuance of a "Final" CAAPP Permit as stipulated in Section 39.5(10)(a) of the Illinois Environmental Protection Act (see Chapter I - Section 1.2 of this document). The Illinois EPA is therefore initiating the necessary procedural requirements to issue a Final CAAPP Permit. The Illinois EPA has posted the Draft CAAPP permit and this Statement of Basis on USEPA website:

<http://www.epa.gov/reg5oair/permits/ilonline.html>

CHAPTER I – LEGAL BASIS FOR THE PERMIT AND PERMIT CONDITIONS

1.1 Legal Basis for Program

The Illinois EPA's state operating permit program for major sources established to meet the requirements of 40 CFR Part 70 are found at Section 39.5 of the Illinois Environmental Protection Act [415 ILCS 5/39.5]. The program is called the Clean Air Act Permitting Program (CAAPP). The underlying statutory authority is found in the Illinois Environmental Protection Act at 415 ILCS 5/39.5. The CAAPP was given final full approval by USEPA on December 4, 2001 (see 66 FR 62946).

1.2 Legal Basis for Issuance of CAAPP Permit

In accordance with Section 39.5(10)(a) of the Illinois Environmental Protection Act, the Illinois EPA may only issue a CAAPP Permit if all of the following standards for issuance have been met:

- The applicant has submitted a complete and certified application for a permit, permit modification, or permit renewal consistent with Sections 39.5(5) and (14) of the Illinois Environmental Protection Act, as applicable, and applicable regulations (Section a. below);
- The applicant has submitted with its complete application an approvable compliance plan, including a schedule for achieving compliance, consistent with Section 39.5(5) of the Illinois Environmental Protection Act and applicable regulations (Section b. below);
- The applicant has timely paid the fees required pursuant to Section 39.5(18) of the Illinois Environmental Protection Act and applicable regulations (Section c. below); and
- The applicant has provided any additional information as requested by the Illinois EPA (Section d. below).

a. Application Status

The source submitted an application for a Renewal CAAPP Permit on 08/07/2006. The source is currently operating an application shield resultant from a timely and complete renewal application submittal. This Draft CAAPP Permit addresses application content and necessary revisions to meet the requirements for issuance of the permit.

b. Present Compliance Status

At the time of this Draft CAAPP Permit, there were no pending State or Federal enforcement actions against the source; therefore, a Compliance Schedule is not required for this source. The source submitted an approvable Compliance Plan as part of its Certified Permit Application. The source has certified compliance with all applicable rules and regulations. In addition, the draft permit requires the source to certify its compliance status on an annual basis.

c. Payment of Fees

The source is current on payment of all fees associated with operation of the emission units.

d. Additional Information

The source provided all the necessary additional application material as requested by the Illinois EPA.

1.3 Legal Basis for Conditions in the CAAPP Permit

This industrial source is subject to a variety of Federal and SIP regulations, which are the legal basis for the conditions in this permit (see Sections a. and b. below). Also, the CAAPP provides the legal basis for additional requirements such as periodic monitoring, reporting, and recordkeeping. The following list summarizes those regulations that form the legal basis for the conditions in this Draft CAAPP Permit and are provided in the permit itself as the origin and authority.

a. Applicable Federal Regulations

This source operates emission units that are subject to the following Federal regulations.

- 40 CFR Part 60 - Subpart A, NSPS General Provisions
- 40 CFR Part 60 - Subpart K, Kb, Volatile Organic Liquid (VOL) Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
- 40 CFR Part 60 - Subpart XX, Standards of Performance for Bulk Gasoline Terminals
- 40 CFR Part 61 - Subpart M, Standard of Asbestos
- 40 CFR Part 63 - Subpart A, NESHAP General Provisions
- 40 CFR Part 63 - Subpart BBBBBB, Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities
- 40 CFR Part 82 - Subpart F, Ozone Depleting Substances

b. Applicable SIP Regulations

This source operates emission units that are subject to the following SIP regulations:

- 35 IAC Part 201 - Permits And General Provisions
- 35 IAC Part 205 - Emissions Reduction Market System
- 35 IAC Part 212 - Visible And Particulate Matter Emissions
- 35 IAC Part 219 - Organic Material Emis Stnds And Lmtns For The Metro East Area
- 35 IAC Part 254 - Annual Emissions Report

c. Other Applicable Requirements

There are no other applicable requirements for this source.

40 CFR Part 63 Subpart CCCCCC (National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities) is not applicable to this source because the source is not a gasoline dispensing facility.

CHAPTER II – FACTUAL BASIS FOR THE PERMIT AND PERMIT CONDITIONS

2.1 Source History

There is no significant source history warranting discussion for this source.

2.2 Description of Source

SIC Code: 5171
County: Madison

The source The BP – Wood River Terminal is located at 335 South Old St. Louis Road in Wood River. The source receives various products like gasoline, diesel oil, aviation fuel, and additives including ethanol and ships them out via trucks and pipeline. The receipt of these various products is by pipeline, barge, and truck. Distillate is also loaded into railcars for shipment. When gasoline and ethanol are loaded into trucks, the fumes are ducted to a vapor recovery unit. Gasoline, ethanol and distillate fuels are received by barge and are loaded on to barges for shipment via a neighboring facility that is owned and operated by an entity not under the control of BP and is not included in this permit.

The source contains the following processes:

<i>Emission Units</i>	<i>Description</i>
Existing Internal Floating Roof Storage Tanks for Volatile Petroleum Liquids (Non NSPS Tanks)	Volatile Petroleum liquid storage tanks constructed in various years
Existing Internal Floating Roof Storage Tanks for Volatile Petroleum Liquid (NSPS Tanks)	Volatile Petroleum liquid storage tanks constructed in various years
Truck Loading Racks	Gasoline and Non-Gasoline Service Loading racks
Fixed Roof Storage Tanks	Gasoline and Non-Gasoline Service

2.3 Single Source Status

This source does not have any collocated facilities that would be considered a single source with this facility based on information found in the certified application.

2.4 Ambient Air Quality Status for the Area

The source is located in an area that is currently designated nonattainment for the National Ambient Air Quality Standards for ozone and PM_{2.5} and attainment or unclassifiable for all other criteria pollutants (carbon monoxide, lead, nitrogen dioxide, sulfur dioxide). (See 40 CFR Part 81 – Designation of Areas for Air Quality Planning Purposes).

2.5 Source Status

The source requires a CAAPP permit because this source is considered major (based on its PTE) for the following regulated pollutant: volatile organic material (VOM).

This source is considered a natural minor for the following regulated pollutants: PM₁₀, PM_{2.5}, nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂) and/or hazardous air pollutant (HAP).

Based on available data, this source is not a major source of emissions for GHG. BP Products North America, Inc. voluntarily submitted data on its emissions of GHG in its 2013 AER, reporting actual annual emissions of GHG of 825.72 tons per year. The emissions consist of 825.72 tons of CO₂, 0.007 tons of N₂O, and 0.035 tons of methane.

This source is not currently subject to any "applicable requirements," as defined by Section 39.5(1) of the Act, for emissions of greenhouse gases (GHG) as defined by 40 CFR 86.1818-12(a), as referenced by 40 CFR 52.21(b)(49)(i). There are no GHG-related requirements under the Illinois Environmental Protection Act, Illinois' State Implementation Plan, or the Clean Air Act that apply to this facility, including terms or conditions in a Construction Permit addressing emissions of GHG or BACT for emissions of GHG from a major project at this facility under the PSD rules. In particular, the USEPA's Mandatory Reporting Rule for GHG emissions, 40 CFR Part 98, does not constitute an "applicable requirement" because it was adopted under the authority of Sections 114(a)(1) and 208 of the Clean Air Act. This permit also does not relieve the Permittee from the legal obligation to comply with the relevant provisions of the Mandatory Reporting Rule for this facility.

2.6 Annual Emissions

The following table lists annual emissions (tons) of criteria pollutants for this source, as reported in the Annual Emission Reports (AER) sent to the Illinois EPA:

<i>Pollutant</i>	<i>2013</i>	<i>2012</i>	<i>2011</i>
CO	2.33	5.58	6.74
NO _x	0.93	2.48	4.19
PM	0.00	0.03	0.17
SO ₂	0.00	0.0022	0.01
VOM	62.18	71.16	63.82
CO _{2E}	825.72	2,321.88	4,163.76
HAP (Hexane)	2.18	2.77	2.346

2.7 Fee Schedule

The following table lists the approved annual fee schedule (tons) submitted in the Source's permit application:

<i>Pollutant</i>	<i>Tons/Year</i>
Volatile Organic Material (VOM)	179.31
Sulfur Dioxide (SO ₂)	---
Particulate Matter (PM)	---
Nitrogen Oxides (NO _x)	8.51
HAP, not included in VOM or (HAP)	---
Total	187.82

2.8 SIP Permit Facts (T1 Limits)

CAAPP Permits must address all “applicable requirements,” which includes the terms and conditions of preconstruction permits issued under regulations approved by USEPA in accordance with Title I of the CAA (See definition of applicable requirements in Section 39.5(1) of the Illinois Environmental Protection Act). Preconstruction permits, commonly referred to in Illinois as Construction Permits, derive from the New Source Review (“NSR”) permit programs required by Title I of the CAA. These programs include the two major NSR permit programs: (1) the Prevention of Significant Deterioration (“PSD”) program¹ and (2) the nonattainment NSR program.² These programs also encompass state construction permit programs for projects that are not major.

In the CAAPP or Illinois’s Title V permit program, the Illinois EPA’s practice is to identify requirements that are carried over from an earlier Title I permit into a New or Renewed CAAPP Permit as “TI” conditions (i.e., Title I conditions). Title I Conditions that are revised as part of their incorporation into a CAAPP Permit are further designated as “TIR”. Title I Conditions that are newly established through a CAAPP Permit are designated as “TIN”. It is important that Title I Conditions be identified in a CAAPP Permit because these conditions will not expire when the CAAPP Permit expires. Because the underlying authority for Title I Conditions comes from Title I of the CAA and their initial establishment in Title I Permits, the effectiveness of T1 Conditions derives from Title I of the CAA rather than being linked to Title V of the A. For “changes” to be made to Title I Conditions, they must either cease to be applicable based on obvious circumstances, e.g., the subject emission unit is permanently shut down, or appropriate Title I procedures must be followed to change the conditions.

- Previously Incorporated Construction Permits:

<i>Permit No.</i>	<i>Date Issued</i>	<i>Subject</i>
00090014	07/01/2002	Railcar distillate loading

- Issued Construction Permits:

<i>Permit No.</i>	<i>Date Issued</i>	<i>Subject</i>
02060031	06/14/2002	Temporary VCU
03070064	03/19/2009	Truck Loading Racks
12010028	02/03/2012	Biodiesel –Piping and blending equipment changes to the existing loading rack

- There are no newly issued Construction Permits for projects not yet constructed for this source.
- The Illinois EPA has not established any T1R or T1N Limits in this Draft CAAPP permit.
- Extraneous or Obsolete T1 Conditions:³

Construction

<i>Permit No.</i>	<i>Condition Number</i>	<i>Subject</i>
00100046	--	Soil Vapor Extraction using internal combustion engines
04020015	04/06/2004	Oxidizer System
06120067	03/30/2007	Flame Ox Project

Chapter III - Supplemental Discussions regarding the Permit

The information provided in this Chapter of the Statement of Basis is being provided to assist interested parties in understanding what additional information may have been relied on to support this draft CAAPP permit.

3.1 Environmental Justice Discussions

While the Illinois EPA is sensitive to the location of this facility in a potential EJ community, Title V does not provide for substantive emission control requirements beyond those arising under currently applicable regulations. Thus, when issuing a CAAPP Permit for this facility, the Illinois EPA does not have the authority to impose additional emission control requirements to reduce emissions beyond the levels provided for by applicable state and federal regulations. At the same time, CAAPP Permits do not allow for additional emissions.

Having a facility subject to a CAAPP Permit provides benefits for air quality, the public and the environment generally. CAAPP Permits require more reporting on a facility's compliance status than is required by underlying state operating permits. For example, the requirements for semi-annual reports for all monitoring and annual compliance certifications only become applicable upon the effectiveness of a CAAPP Permit. In addition, CAAPP Permits generally provide clarity and awareness of applicable regulations and the mechanisms by which sources must comply with these regulations. CAAPP Permits add to the compliance checks put on facilities. Where a facility has outstanding compliance deficiencies, CAAPP Permits may establish compliance schedules and other additional conditions for monitoring and reporting.

With this Statement of Basis, the Illinois EPA has made very clear the applicable emission limitations, standards, and other enforceable terms and conditions, as well as attendant monitoring, reporting, recordkeeping, and certifications to assure compliance. The Illinois EPA has provided an explanation of same, as well as a justification for why the conditions that assure compliance are appropriate. The level of detail in the Statement of Basis is atypically involved and is in recognition of the public interest in the permitting of this complex facility in a potential EJ community. The Statement of Basis has been provided to the USEPA for its review. The extremely detailed explanation of the requirements, particularly Periodic Monitoring, applicable to this source is intended to further meaningful public participation.

3.2 Emission Testing Results

The source has performed the following emission testing:

<i>Emission Unit</i>	<i>Date</i>	<i>Pollutant</i>	<i>Effluent VOM Concentration (mg/L)</i>	<i>Permitted Effluent VOM Concentration (mg/L)</i>
Vapor Combustion Unit (VCU)	09/29/2010	VOM	9.69	15.0
Vapor Recovery Unit (VRU)	09/30/2010	VOM	1.63	35

3.3 Compliance Reports (Annual Certifications, Semiannual Monitoring, NESHAP, etc.)

A review of the source's compliance reports demonstrates the sources ability to comply with all applicable requirements.

3.4 Field Inspection Results

A review of the source's latest field inspection report dated 09/04/2013 demonstrates the source's ability to comply with all applicable requirements.

3.5 Historical Non-Compliance

There is no historical non-compliance for this source.

3.6 Source Wide Justifications and Rationale

Applicable Requirements Summary		
Applicable Requirement	Type	Location
Fugitive Particulate Matter (35 IAC 212.301 and 35 IAC 212.314)	Applicable Standard	See the Permit, Condition 3.1(a)
Ozone Depleting Substance Requirement (40 CFR 82.150(B))	Applicable Work Practice	See the Permit, Condition 3.1(c)
Equipment Leaks (40 CFR 63 Subpart BBBBBB)	Applicable Work Practice	See the Permit, Condition 3.3
Pump and Compressor Leak Requirements (35 IAC 219.142)	Applicable Standard	See the Permit, Condition 3.4

Particulate Matter Emission

- ✓ Monitoring as follows (Condition 3.1(a)(ii))
 - o Daily observation upon request
 - o Collecting the leak and measuring the amount of VOL discharged
- ✓ Recordkeeping as follows (Condition 3.1(a)(ii) and 3.4 (c)):
 - o Record of observation
 - o Records of the discharge of VOL emissions (ml).
- ✓ Reporting as follows (Condition 3.5(a)):
 - o Prompt reporting in 30 days

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Organic Material Emission

- ✓ Monitoring as follows (Condition 3.3 and 3.4)
 - o Monthly leak inspections of all equipment in gasoline service.
- ✓ Recordkeeping as follows (Conditions 3.3 and 3.4)):
 - o Log book of the inspections, repairs or replacements of leaking equipment.
- ✓ Reporting as follows (Condition 3.3(a)(iv)):
 - o Prompt reporting within 15 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The Source implements a monthly equipment leak inspection as required in 40 CFR 63 Subpart BBBBBB; the Source's work practices by routinely inspecting for leaks promptly means that leaks of the magnitude described in 35 IAC 219.142 are rare. When a leak is detected, appropriate measurements of the amount of VOL discharged are collected to demonstrate compliance with the applicable limit.

Non-Applicability Discussion

Complex source-wide non-applicability determinations were not made for this source.

Prompt Reporting Discussion

Prompt reporting of deviations for source wide emission units has been established as 30 days. See rationale in Chapter III Section 3.9.

3.7 Emission Unit Justifications and Rationale

a. Internal Floating Roof Storage Tanks for Volatile Petroleum Liquids (Non NSPS Tanks)- Gasoline Service		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Work Practices and Control Requirements NESHAP Subpart BBBBBB (35 IAC 219.121, 219.122 and 219.123)	Applicable Work Practice	See the Permit, Condition 4.1.2

Work Practices and Control Requirements

Requirements of 35 IAC Part 219:

- ✓ Monitoring as follows (Conditions 4.1.2(a)(ii)(B))
 - o Routine inspection of floating roof seals once every 6 month
 - o Complete inspection when tank is emptied
 - o Presence of submerged loading pipe

- ✓ Recordkeeping as follows (Conditions 4.1.2(a)(ii)(C)):
 - o Tank identification and time the inspection was performed
 - o Method of inspection and conditions observed
 - o Detection of liquid or vapor leak
 - o A log book showing all equipment in service
 - o Records of the presence of the loading pipe
- ✓ Reporting as follows (Condition 4.1.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

NESHAP 40 CFR 63 Subpart BBBBBB

- ✓ Monitoring as follows (Conditions 4.1.2(a)(ii)(A), (B)&(C))
 - o Visual inspections of floating roof system as required.
 - o Method of inspection and conditions observed
 - o List of petroleum product stored
 - o Tank design information
- ✓ Recordkeeping as follows (Conditions 4.1.2(b)(ii)(C) through (E)):
 - o Records of inspections performed
- ✓ Reporting as follows (Condition 4.1.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Non-Applicability Discussion

35 IAC 219.122(a) and (c). Loading Operations are not applicable to the Existing Internal Floating Roof Storage Tanks for Volatile Petroleum Liquids because the loading operations are addressed separately in the Draft CAAPP Permit, Section 4.3, for loading racks. All other non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

b. Internal Floating Roof Storage Tanks for Volatile Petroleum Liquids (Non NSPS Tanks)- Non Gasoline Service		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Work Practices and Control Requirements (35 IAC 219.121, 219.122 and 219.123)	Applicable Work Practice	See the Permit, Condition 4.2.2

Work Practices and Control Requirements

Requirements of 35 IAC Part 219:

- ✓ Monitoring as follows (Conditions 4.2.2(b)(ii)(A))
 - o Routine inspection of floating roof seals once every 6 month
 - o Complete inspection when tank is emptied
 - o Presence of submerged loading pipe
- ✓ Recordkeeping as follows (Conditions 4.2.2(b)(ii)(C), (D), (E) and (F)):
 - o Tank identification and time the inspection was performed
 - o Method of inspection and conditions observed
 - o Detection of liquid or vapor leak
 - o A log book showing all equipment in service
 - o Records of the presence of the loading pipe
- ✓ Reporting as follows (Condition 4.2.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Non-Applicability Discussion

35 IAC 219.122(a) and (c). Loading Operations are not applicable to the Existing Internal Floating Roof Storage Tanks for Volatile Petroleum Liquids because the loading operations are addressed separately in the Draft CAAPP Permit, Section 4.3, for loading racks. All other non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

c. External Floating Roof Storage Tank for Volatile Petroleum Liquids		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Work Practices and Control Requirements NESHAP Subpart BBBBBB (35 IAC 219.121, 219.122 and 219.123)	Applicable Work Practice	See the Permit, Condition 4.3.2(a)

Work Practices and Control Requirements

NESHAP 40 CFR 63 Subpart BBBBBB and 40 CFR 60 Subpart Kb

- ✓ Monitoring as follows (Conditions 4.3.2(b)(ii)(A)&(C))
 - o Visual inspections of floating roof system as required.
 - o Method of inspection and conditions observed
 - o Annual testing for gasoline cargo tanks
 - o List of petroleum product stored
 - o Maximum true vapor pressure
 - o Tank design information
- ✓ Recordkeeping as follows (Conditions 4.3.2(b)(ii)(D) through (F)):
 - o Records of inspections performed
- ✓ Reporting as follows (Condition 4.3.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Requirements of 35 IAC Part 219:

- ✓ Monitoring as follows (Conditions 4.3.2(a)(ii)(A))
 - o Routine inspection of floating roof seals once every 6 month
 - o Complete inspection when tank is emptied
 - o Presence of submerged loading pipe
- ✓ Recordkeeping as follows (Conditions 4.3.2(b)(ii)(D)):
 - o Tank identification and time the inspection was performed
 - o Method of inspection and conditions observed
 - o Detection of liquid or vapor leak
 - o A log book showing all equipment in service
- ✓ Reporting as follows (Condition 4.3.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Emissions are easily determined from tanks using standard methodologies such as with a TANK emissions program. In the TANKS program, some of the values for these variables come loaded in the software as U.S. EPA-approved default values, some are well-suited to be entered once for the tank and the material it stores, and some are intended to be updated routinely. Meteorological data (temperatures, wind speed, etc.) for the Chicago area comes pre-programmed in TANKS. Data about the tank itself (diameter, paint color, floating roof type, floating roof seal types, etc.) must be entered by the user.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

d. Truck Loading Rack		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
VOM Requirements (35 IAC 219.582(a)(1)) NESHAP Subpart BBBBBB NSPS 40 CFR 60 Subpart XX Title I Requirements	Applicable Standards and Limit	See the Permit, Condition 4.4.2(a)
CO Requirements Title I Requirements	Applicable Standards and Limit	See the Permit, Condition 4.4.2(b)
NOx Requirements Title I Requirements	Applicable Standards and Limit	See the Permit, Condition 4.4.2(c)
Work Practices and Control Requirements NESHAP Subpart BBBBBB	Applicable Work Practice	See the Permit, Condition 4.4.2(d)
Work Practices and Control Requirements NSPS 40 CFR 60 Subpart XX	Applicable Work Practice	See the Permit, Condition 4.4.2(e)
Work Practices and Control Requirements (35 IAC 219.582)	Applicable Work Practice	See the Permit, Condition 4.4.2(f)
Operational and Production Requirement	Applicable Operational Standards	See the Permit, Condition 4.4.2(g)

Organic Material Emission

- ✓ Monitoring as follows (Conditions 4.4.2(a)(ii)(A), (B)&(C))
 - o Monthly and yearly VOM emissions
 - o VCU testing 18 months after issuance and every five years
 - o Daily Inspections
 - o CAM requirements are addressed
 - o CEMS installed in the exhaust air stream from a carbon adsorption system (VRU)
- ✓ Recordkeeping as follows (Condition 4.4.2(a)(ii)):
 - o Monthly and yearly records of VOM emissions with supporting calculations
 - o Test results data to demonstrate efficiency of the VCU control
 - o Annual testing for gasoline cargo tanks
- ✓ Reporting as follows (Condition 4.4.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The VCU test results identified on Section 3.2 demonstrated compliance with the applicable limits. The Source is required to re-test within 18 months after issuance of the permit and every five years to compare against the limit of 15 mg/l and demonstrate compliance.
- VOM emissions are calculated based on the data derived from stack test results and converted into appropriate units (mg/l, tons/month and tons/year).
- BP Wood River Terminal is equipped with a John Zink Vapor Combustion Unit (VCU), the hydrocarbon vapors generated from the loading facility are transported by vapor piping through the Zink flame detonation arrester and continue to the combustion chamber for destruction. The facility is subject to the requirements in 40 CFR Subpart BBBBBB and it is operating its gasoline loading rack pursuant to 40 CFR 63.11092(b)(1)(iii)(B)(1) one of the Continuous Monitoring System (CMS) options for the VCU. The same requirements are included in the CAM plan. This type of monitoring is a common option among loading operation in similar facilities. The CAM plan includes the continuous verification of the presence of the VCU pilot flame by using an ultraviolet beam sensor installed in proximity to the pilot light. The heat sending device send a positive parameter value to indicate that the pilot flame is on, or a negative parameter value to indicate that the pilot flame is off.

Carbon Monoxide Requirements (CO)

- ✓ Monitoring as follows (Conditions 4.4.2(b)(ii)(A))
 - o Monthly and yearly CO emissions
- ✓ Recordkeeping as follows (Condition 4.4.2(b)(ii)):

- o Monthly and yearly records of CO emissions with supporting calculations
- ✓ Reporting as follows (Condition 4.4.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- CO emission limits are in terms of monthly and yearly limits and therefore emissions are determined on a monthly and yearly frequency providing a running 12-month total.
- The annual emission limits of 21.28 tons/year CO can be calculated as follows, using these emission factors and the maximum permitted gasoline throughput of 510 million gallons per year

$$(10 \text{ mg CO/L}) * (3.785 \text{ L/1 gal}) * (1 \text{ lb/453,592 mg}) * (510,000,000 \text{ gallons/year}) * (1 \text{ ton/2,000 lbs}) = 21.28 \text{ tons/year CO}$$
- The monthly emission limits of 2.66 tons/month CO can be calculated as follows, using these emission factors and the maximum permitted gasoline throughput of 63.75 million gallons per month

$$(10 \text{ mg CO/L}) * (3.785 \text{ L/1 gal}) * (1 \text{ lb/453,592 mg}) * (63,750,000 \text{ gallons/month}) * (1 \text{ ton/2,000 lbs}) = 2.66 \text{ tons/month CO}$$

Nitrogen Oxide Requirements (NOx)

- ✓ Monitoring as follows (Conditions 4.4.2(c)(ii)(A))
 - o Monthly and yearly CO emissions
- ✓ Recordkeeping as follows (Condition 4.4.2(c)(ii)):
 - o Monthly and yearly records of NOx emissions with supporting calculations
- ✓ Reporting as follows (Condition 4.5.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- NO_x emission limits are in terms of monthly and yearly limits and therefore emissions are determined on a monthly and yearly frequency providing a running 12-month total. As noted in the February 2009 application to revise Construction Permit No. 03070064 for the Wood River loading rack, the NOx emission factor for the VCU is 4 mg/L and the CO emission factor for the VCU is 10 mg/L. These factors were provided by

the VCU's manufacturer (John Zink Company) based on test results from similar combustors.

- The annual emission limits of 8.51 tons/year NO_x can be calculated as follows, using these emission factors and the maximum permitted gasoline throughput of 510 million gallons per year:
- $(4 \text{ mg NO}_x/\text{L}) * (3.785 \text{ L/1 gal}) * (1 \text{ lb}/453,592 \text{ mg}) * (510,000,000 \text{ gallons/year}) * (1 \text{ ton}/2,000 \text{ lbs}) = 8.51 \text{ tons/year NO}_x$
- The monthly emission limits of 1.06 tons/month NO_x can be calculated as follows, using these emission factors and the maximum permitted gasoline throughput of 63.75 million gallons per month:
- $(4 \text{ mg NO}_x/\text{L}) * (3.785 \text{ L/1 gal}) * (1 \text{ lb}/453,592 \text{ mg}) * (63,750,000 \text{ gallons/month}) * (1 \text{ ton}/2,000 \text{ lbs}) = 1.06 \text{ tons/month NO}_x$

$(0.00004175 \text{ lb NO}_x/\text{gal}) * (63,750,000 \text{ gal/mo}) * (\text{tons}/2,000 \text{ lbs}) = 1.33 \text{ tons NO}_x/\text{mo}$

$(0.00004175 \text{ lb NO}_x/\text{gal}) * (510,000,000 \text{ gal/yr}) * (\text{tons}/2,000 \text{ lbs}) = 11.06 \text{ tons NO}_x/\text{yr}$

- Ongoing compliance with these emission limits will be determined by using the same vendor-guaranteed NO_x emission factor and then applying the actual monthly or annual gasoline throughput in the equations above, rather than the gasoline throughput limits.

Work Practices and Control Requirements

The Vapor Combustion Unit (VCU) manufactured by John Zink Vapor consists of two flare type burners each equipped with a pilot flame. When significant pressure builds up in the vapor pipeline from the loading rack, the pilot flame will ignite the displaced vapors in much the same way as a candle flame, but in an enclosed cylinder.

NESHAP 40 CFR 63 Subpart BBBBBB

- ✓ Monitoring as follows (Conditions 4.4.2(c)(ii)(A)&(B))
 - o Visual inspections to indicate the presence of a flame by using a heat-sensing device
 - o Method of inspection and conditions observed
 - o Semi-annual preventive maintenance inspections
 - o Daily inspections of the loading rack
- ✓ Recordkeeping as follows (Conditions 4.4.2(c)(ii)(C)&(D)):
 - o Records of inspections performed
 - o Records of malfunctions and monitoring equipment.
- ✓ Reporting as follows (Condition 4.4.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.

- Monitoring is consistent with other sources in this source category.

40 CFR 60 Subpart XX

- ✓ Monitoring as follows (Conditions 4.4.2(d)(ii)(A) through (F) and 4.4.2(a)(ii))
 - o Testing requirements
 - o Monthly inspections of the Vapor collection system
- ✓ Recordkeeping as follows (Conditions 4.4.2(d)(ii)(H) and 4.4.2(a)(ii)):
 - o Records of testing results
 - o Records of inspections performed
- ✓ Reporting as follows (Condition 4.4.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Requirements of 35 IAC Part 219:

- ✓ Monitoring as follows (Conditions 4.4.2(e)(ii))
 - o Delivery vessel parameters
- ✓ Recordkeeping as follows (Conditions 4.4.2(b)(ii)(G)):
 - o Records of delivery vessel parameters Method of inspection and conditions observed.
 - o Records of testing results
- ✓ Reporting as follows (Condition 4.4.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Operational and Production Requirements

- ✓ Monitoring as follows (Conditions 4.4.2(f)(ii)(A))
 - o Annual limit of throughput of the loading racks
- ✓ Recordkeeping as follows (Conditions 4.4.2(f)(ii)(B)):
 - o Monthly and annual records of total gasoline loadout processed by the loading racks.

- o Records of the test results for each gasoline cargo tank loading
- ✓ Reporting as follows (Condition 4.4.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Non-Applicability Discussion

The general requirements of 40 CFR 60.18 and 40 CFR 63.11 are not applicable to the loading racks VCU because the VCU is not an open flare and 40 CFR 63 Subpart BBBBBB and 40 CFR 60 Subpart XX do not provide the references to the general provisions established in 40 CFR 60.18 and 40 CFR 63.11.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

e. Fixed Roof Storage Tanks - Non Gasoline Service		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Work Practices and Control Requirements (35 IAC 219.121, 219.122 and 219.123)	Applicable Work Practice	See the Permit, Condition 4.5.2

Work Practices and Control Requirements

Requirements of 35 IAC Part 219:

- ✓ Monitoring as follows (Conditions 4.5.2(b)(ii)(A)):
 - o Routine inspection once every 6 month
 - o Complete inspection when tank is emptied
 - o Presence of submerged loading pipe
- ✓ Recordkeeping as follows (Conditions 4.5.2(b)(ii)(C), (D), (E) and (F)):
 - o Tank identification and time the inspection was performed
 - o Method of inspection and conditions observed
 - o Detection of liquid or vapor leak
 - o A log book showing all equipment in service
 - o Records of the presence of the loading pipe
- ✓ Reporting as follows (Condition 4.5.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

f. Fixed Roof Storage Tank - Non Gasoline Service		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Work Practices and Control Requirements NESHAP Subpart BBBBBB (35 IAC 219.121, 219.122 and 219.123)	Applicable Work Practice	See the Permit, Condition 4.6.2(a)

Work Practices and Control Requirements

NESHAP 40 CFR 63 Subpart BBBBBB and

- ✓ Monitoring as follows (Conditions 4.6.2(b)(ii)(A)&(C))
 - o Visual inspections as required.
 - o Method of inspection and conditions observed
 - o List of petroleum product stored
 - o Maximum true vapor pressure
 - o Tank design information
- ✓ Recordkeeping as follows (Conditions 4.6.2(b)(ii)(D) through (F)):
 - o Records of inspections performed
- ✓ Reporting as follows (Condition 4.6.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Requirements of 35 IAC Part 219:

- ✓ Monitoring as follows (Conditions 4.6.2(a)(ii)(A))
 - o Routine inspections once every 6 month

- o Complete inspection when tank is emptied
- o Presence of submerged loading pipe
- ✓ Recordkeeping as follows (Conditions 4.6.2(b)(ii)(D))):
 - o Tank identification and time the inspection was performed
 - o Method of inspection and conditions observed
 - o Detection of liquid or vapor leak
 - o A log book showing all equipment in service
- ✓ Reporting as follows (Condition 4.6.5):
 - o Prompt reporting within 30 days
 - o Semiannual compliance report

Rationale and Justification for Periodic Monitoring

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Emissions are easily determined from tanks using standard methodologies such as with a TANK emissions program. In the TANKS program, some of the values for these variables come loaded in the software as U.S. EPA-approved default values, some are well-suited to be entered once for the tank and the material it stores, and some are intended to be updated routinely. Meteorological data (temperatures, wind speed, etc.) for the Chicago area comes pre-programmed in TANKS. Data about the tank itself (diameter, paint color, floating roof type, floating roof seal types, etc.) must be entered by the user.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

g. Other Emission Units		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
VOM Requirement (35 IAC 219.204) (Const. Permit #0090014)	Applicable Standard and limit	See the Permit, Condition 4.7.2(a)
Operational Requirement (Const. Permit #72120719)	Applicable limit	See the Permit, Condition 4.7.2(b)

Volatile Organic Material

- ✓ Recordkeeping as follows (Condition 4.7.2(a)(ii))):
 - o Monthly and annually records with supporting calculations of the actual emissions of VOM emissions.

- ✓ Reporting as follows (Condition 4.3.5 (a)(i))):
 - o Prompt reporting of deviation within 30 days.

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Monitoring is consistent with other sources in this source category. For emissions limitation, monthly and annual records are sufficient to demonstrate compliance.
- The current emission limit for the Distillate Railcar Loading Operations (2.42 tons/year) was established by a 2000 construction permit. Emissions were calculated using the AP-42 loading loss equation (Section 5.2, Equation 1) to give a lb/1000 gal emission factor and then the maximum allowable throughput [see proposed CAAPP Condition 4.7.2(b)(i)(A)] of 180 million gallons year of distillate loaded into railcars. In the AP-42 equation, BP used 1.45 as "S" (the saturation factor) for splash loading of the railcars and then properties of distillate. The calculation is as follows:

$$(180,000,000 \text{ gallons/year}) * (1 \text{ Mgal}/1,000 \text{ gal}) * [12.46 * 1.45 * (0.0059 \text{ psia}) * (130 \text{ lb}/\text{lbmole}) / (55.42 + 460 \text{ R}) \text{ lb}/\text{Mgal}] * (\text{ton}/2,000 \text{ lb}) = 2.42 \text{ tpy}.$$

Actual emissions on an ongoing basis are calculated (to demonstrate compliance with the limit). BP uses the same emission factor from the AP-42 equation along with the actual volume loaded. Note that loading railcars with distillate has become an infrequent event at the Wood River Terminal, so calculations are the most practical compliance demonstration method.

- The current emission limits for the V-100 Oil Water Separator (0.2 tons/month and 2.2 tons/year), actual emissions on an ongoing basis (to demonstrate compliance with the limits) are calculated using the best available data for oil/water separator throughput (this is not directly metered). In recent years, BP has been using the TANKS program to estimate emissions (treating the separator as a horizontal storage tank), but the AP-42 factor for separators could also be used.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

3.8 Insignificant Activities Discussion

There are no insignificant activities for the source subject to specific regulations which are obligated to comply with Sections 9.1(d) and Section 39.5 of the Act; Sections 165, 173, and 502 of the Clean Air Act; or any other applicable permit or registration requirements and therefore there are no periodic monitoring requirements that need to be separately addressed.

3.9 Prompt Reporting Discussion

Among other terms and conditions, CAAPP Permits contain reporting obligations to assure compliance with applicable requirements. These reporting obligations are generally four-fold. More specifically, each CAAPP Permit sets forth any reporting requirements specified by state or federal law or regulation, requires prompt reports of deviations from applicable requirements, requires reports of deviations from required monitoring and requires a report certifying the status of compliance with terms and conditions of the CAAPP Permit over the calendar year.

The number and frequency of reporting obligations in any CAAPP Permit is source-specific. That is, the reporting obligations are directly related to factors, including the number and type of emission units and applicable requirements, the complexity of the source and the compliance status. This four-fold approach to reporting is common to virtually all CAAPP Permits as described below. Moreover, this is the approach established in the Draft CAAPP Permit for this source.

Regulatory Reports

Many state and federal environmental regulations establish reporting obligations. These obligations vary from rule-to-rule and thus from CAAPP source to CAAPP source and from CAAPP Permit to CAAPP Permit. The variation is found in the report triggering events, reporting period, reporting frequency and reporting content. Regardless, the CAAPP makes clear that all reports established under applicable regulations shall be carried forward into the CAAPP Permit as stated in Section 39.5(7)(b) of the Illinois Environmental Protection Act. Generally, where sufficiently detailed to meet the exacting standards of the CAAPP, the regulatory reporting requirements are simply restated in the CAAPP Permit. Depending on the regulatory obligations, these regulatory reports may also constitute a deviation report as described below.

The Draft CAAPP Permit for this source would embody all regulatory reporting as promulgated under federal and state regulations under the Clean Air Act and the Illinois Environmental Protection Act. Depending on the frequency of the report, the regulatory report may also satisfy the prompt reporting obligations discussed below. These reports must be certified by a responsible official.

These reports are generally found in the reporting sections for each emission unit group. The various regulatory reporting requirements are summarized in the table at the end of this Reporting Section.

Deviation Reports (Prompt Reporting)

Section 39.5(7)(f)(ii) of the Illinois Environmental Protection Act mandates that each CAAPP Permit require prompt reporting of deviations from the permit requirements.

Neither the CAAPP nor the federal rules upon which the CAAPP is based and was approved by USEPA define the term "prompt". Rather, 40 CFR Part 70.6(a)(3)(iii)(B) intended that the term have flexibility in application. The USEPA has acknowledged for purposes of administrative efficiency and clarity that the permitting authority (in this case, Illinois EPA) has the discretion to define "prompt" in relation to the degree and type of deviation likely to occur at a particular source. The Illinois EPA follows this approach and defines prompt reporting on a permit-by-permit basis. In instances where the underlying applicable requirement contains "prompt" reporting, the Illinois EPA typically incorporates the pre-established timeframe in the CAAPP permit (e.g.

a NESHAP or NSPS deviation report). Where the underlying applicable requirement fails to explicitly set forth the timeframe for reporting deviations, the Illinois EPA generally uses a timeframe of 30 days to define prompt reporting of deviations.

This approach to prompt reporting of deviations as discussed herein is consistent with the requirements of Section 39.5(7)(f)(ii) of the Illinois Environmental Protection Act as well as 40 CFR Part 70 and the CAA. The reporting arrangement is designed so that the source will appropriately notify the Illinois EPA of those events that might warrant attention. The timing for these event-specific notifications is necessary and appropriate as it gives the source enough time to conduct a thorough investigation into the causes of an event, collecting any necessary data, and developing preventive measures, to reduce the likelihood of similar events, all of which must be addressed in the notification for the deviation, while at the same time affording regulatory authority and the public timely and relevant information. The approach also affords the Illinois EPA and USEPA an opportunity to direct investigation and follow-up activities, and to make compliance and enforcement decisions in a timely fashion.

The Draft CAAPP Permit for this source would require prompt reporting as required by the Illinois Environmental Protection Act in the fashion described in this subsection. In addition, pursuant to Section 39.5(7)(f)(i) of the Illinois Environmental Protection Act, this Draft CAAPP Permit would also require the source to provide a summary of all deviations with the Semi-Annual Monitoring Report. These reports must be certified by a responsible official, and are generally found in the reporting sections for each emission unit group.

Semi-Annual Monitoring Reports

Section 39.5(7)(f)(i) of the Illinois Environmental Protection Act mandates that each CAAPP Permit require a report relative to monitoring obligations as set forth in the permit. Depending upon the monitoring obligation at issue, the semi-annual monitoring report may also constitute a deviation report as previously discussed. This monitoring at issue includes instrumental and non-instrumental emissions monitoring, emissions analyses, and emissions testing established by state or federal laws or regulations or as established in the CAAPP Permit. This monitoring also includes recordkeeping. Each deviation from each monitoring requirement must be identified in the relevant semi-annual report. These reports provide a timely opportunity to assess for compliance patterns of concern. The semi-annual reports shall be submitted regardless of any deviation events. Reporting periods for semi-annual monitoring reports are January 1 through June 30 and July 1 through December 31 of each calendar year. Each semi-annual report is due within 30 days after the close of reporting period. The reports shall be certified by a responsible official. The Draft CAAPP Permit for this source would require such reports at Condition 3.5(b).

Annual Compliance Certifications

Section 39.5(7)(p)(v) of the Illinois Environmental Protection Act mandates that each CAAPP Permit require a source to submit a certification of its compliance status with each term and condition of its CAAPP Permit. The reports afford a broad assessment of a CAAPP sources compliance status. The CAAPP requires that this report be submitted, regardless of compliance status, on an annual basis. Each CAAPP Permit requires this annual certification be submitted by May 1 of the year immediately following the calendar year reporting period. The report shall be certified by a responsible official.

The Draft CAAPP Permit for this source would require such a report at Condition 2.6(a).

Prompt reporting of deviations is critical in order to have timely notice of deviations and the opportunity to respond, if necessary. The effectiveness of the permit depends upon, among other important elements, timely and accurate reporting. The Illinois EPA, USEPA, and the public rely on timely and accurate reports submitted by the source to measure compliance and to direct investigation and follow-up activities. Prompt reporting is evidence of the source's good faith in disclosing deviations and describing the steps taken to return to compliance and prevent similar incidents.

Any occurrence that results in an excursion from any emission limitation, operating condition, or work practice standard as specified in this Draft CAAPP Permit is a deviation subject to prompt reporting. Additionally, any failure to comply with any permit term or condition is a deviation of that permit term or condition and must be reported to the Illinois EPA as a permit deviation. The deviation may or may not be a violation of an emission limitation or standard. A permit deviation can exist even though other indicators of compliance suggest that no emissions violation or exceedance has occurred. Reporting permit deviations does not necessarily result in enforcement action. The Illinois EPA has the discretion to take enforcement action for permit deviations that may or may not constitute a deviation from an emission limitation or standard or the like, as necessary and appropriate.

As a result, the Illinois EPA's approach to prompt reporting of deviations as discussed herein is consistent with the requirements of Section 39.5(7)(f)(ii) of the Illinois Environmental Protection Act as well as 40 CFR Part 70 and the CAA. This reporting arrangement is designed so that the source will appropriately notify the Illinois EPA of those events that might warrant individual attention.

3.10 Incorporation by Reference Discussion

Based on guidance found in White Paper 2 and past petition responses by the Administrator, it is recognized that Title V permit authorities may, within their discretion, incorporate plans by reference. As recognized in the *White Paper 2*, permit authorities can effectively streamline the contents of a Title V permit, avoiding the inevitable clutter of restated text and preventing unnecessary delays where, as here, permit issuance is subject to a decision deadline.⁴ However, it is also recognized that the benefits of incorporation of plans must be carefully balanced by a permit authority with its duty to issue permits in a way that is "clear and meaningful" to the Permittee and the public.⁵

The criteria that are mentioned in USEPA Administrator Petition Responses stress the importance of identifying, *with specificity*, the object of the incorporation.⁶ The Illinois EPA agrees that such emphasis is generally consistent with USEPA's pronouncements in previous guidance.

For each condition incorporating a plan, the Illinois EPA is also briefly describing the general manner in which the plan applies to the source. Identifying the nature of the source activity, the regulatory requirements or the nature of the equipment associated with the plan is a recommendation of the *White Paper 2*.⁷ The Illinois EPA has stopped short of enumerating the actual contents of a plan, as restating them in the permit would plainly defeat the

purpose of incorporating the document by reference and be contrary to USEPA guidance on the subject.⁸

Plans may need to be revised from time to time, as occasionally required by circumstance or by underlying rule or permit requirement. Except where expressly precluded by the relevant rules, this Draft CAAPP Permit allows the Permittee to make future changes to a plan without undergoing formal permit revision procedures. This approach will allow flexibility to make required changes to a plan without separately applying for a revised permit and, similarly, will lessen the impacts that could result for the Illinois EPA if every change to a plan's contents required a permitting transaction.⁹ Changes to the incorporated plans during the permit term are automatically incorporated into the Draft CAAPP Permit unless the Illinois EPA expresses a written objection.

The Draft CAAPP Permit incorporates by reference the following plan: Episode Action Plan.¹⁰

3.11 Periodic Monitoring General Discussions

Pursuant to Section 504(c) of the Clean Air Act, a Title V permit must set forth monitoring requirements, commonly referred to as "Periodic Monitoring", to assure compliance with the terms and conditions of the permit. A general discussion of Periodic Monitoring is provided below. The Periodic Monitoring that is proposed for specific operations and emission units and at this source is discussed in Chapter III of this Statement of Basis. Chapter III provides a narrative discussion of and justification for the elements of Periodic Monitoring that would apply to the different emission units and types of emission units at the facility.

As a general matter, the required content of a CAAPP Permit with respect to such Periodic Monitoring is addressed in Section 39.5(7) of the Illinois Environmental Protection Act.¹¹ Section 39.5(7)(b) of the Illinois Environmental Protection Act¹² provides that in a CAAPP Permit:

The Agency shall include among such conditions applicable monitoring, reporting, record keeping and compliance certification requirements, as authorized by paragraphs d, e, and f of this subsection, that the Agency deems necessary to assure compliance with the Clean Air Act, the regulations promulgated thereunder, this Act, and applicable Board regulations. When monitoring, reporting, record keeping and compliance certification requirements are specified within the Clean Air Act, regulations promulgated thereunder, this Act, or applicable regulations, such requirements shall be included within the CAAPP Permit.

Section 39.5(7)(d)(ii) of the Illinois Environmental Protection Act further provides that a CAAPP Permit shall:

Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), require Periodic Monitoring sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit
...

Accordingly, the scope of the Periodic Monitoring that must be included in a CAAPP Permit is not restricted to monitoring requirements that were adopted

through rulemaking or imposed through permitting. When applicable regulatory emission standards and control requirements or limits and control requirement in relevant Title 1 permits are not accompanied by compliance procedures, it is necessary for Monitoring for these standards, requirements or limits to be established in a CAAPP Permit.^{13, 14} Monitoring requirements must also be established when standards and control requirement are accompanied by compliance procedures but those procedures are not adequate to assure compliance with the applicable standards or requirements.^{15, 16} For this purpose, the requirements for Periodic Monitoring in a CAAPP Permit may include requirements for emission testing, emissions monitoring, operational monitoring, non-instrumental monitoring, and recordkeeping for each emission unit or group of similar units at a facility, as required by rule or permit, as appropriate or as needed to assure compliance with the applicable substantive requirements. Various combinations of monitoring measures will be appropriate for different emission units depending on their circumstances, including the substantive emission standards, limitations and control requirements to which they are subject.

What constitutes sufficient Periodic Monitoring for particular emission units, including the timing or frequency associated with such Monitoring requirements, must be determined by the permitting authority based on its knowledge, experience and judgment.¹⁷ For example, as Periodic Monitoring must collect representative data, the timing of Monitoring requirements need not match the averaging time or compliance period of the associated substantive requirements, as set by the relevant regulations and permit provisions. The timing of the various requirements making up the Periodic Monitoring for an emission unit is something that must be considered when those Monitoring requirements are being established. For this purpose, Periodic Monitoring often consists of requirements that apply on a regular basis, such as routine recordkeeping for the operation of control devices or the implementation of the control practices for an emission unit. For certain units, this regular monitoring may entail "continuous" monitoring of emissions, opacity or key operating parameters of a process or its associated control equipment, with direct measurement and automatic recording of the selected parameter(s). As it is infeasible or impractical to require emissions monitoring for most emission units, instrumental monitoring is more commonly conducted for the operating parameters of an emission unit or its associated control equipment. Monitoring for operating parameter(s) serves to confirm proper operation of equipment, consistent with operation to comply with applicable emission standards and limits. In certain cases, an applicable rule may directly specify that a particular level of an operating parameter be maintained, consistent with the manner in which a unit was being operated during emission testing. Periodic Monitoring may also consist of requirements that apply on a periodic basis, such as inspections to verify the proper functioning of an emission unit and its associated controls.

The Periodic Monitoring for an emission unit may also include measures, such as emission testing, that would only be required once or only upon specific request by the Illinois EPA. These requirements would always be accompanied by Monitoring requirements would apply on a regular basis. When emission testing or other measure is only required upon request by the Illinois EPA, it is included as part of the Periodic Monitoring for an emission unit to facilitate a response by the Illinois EPA to circumstances that were not contemplated when Monitoring was being established, such as the handling of a new material or a new mode of operation. Such Monitoring would also serve to provide further verification of compliance, along with other potentially useful information. As emission testing provides a quantitative determination of compliance, it

would also provide a determination of the margin of compliance with the applicable limit(s) and serve to confirm that the Monitoring required for an emission unit on a regular basis is reliable and appropriate. Such testing might also identify specific values of operating parameters of a unit or its associated control equipment that accompany compliance and can be relied upon as part of regular Monitoring.

There are a number of considerations or factors that are or may be relevant when evaluating the need to establish new monitoring requirements as part of the Periodic Monitoring for an emission unit. These factors include: (1) The nature of the emission unit or process and its emissions; (2) The variability in the operation and the emissions of the unit or process over time; (3) The use of add-on air pollution control equipment or other practices to control emissions and comply with the applicable substantive requirement(s); (4) The nature of that control equipment or those control practices and the potential for variability in their effectiveness; (5) The nature of the applicable substantive requirement(s) for which Periodic Monitoring is needed; (6) The nature of the compliance procedures that specifically accompany the applicable requirements; (7) The type of data that would already be available for the unit; (8) The effort needed to comply with the applicable requirements and the expected margin of compliance; (9) The likelihood of a violation of applicable requirements; (10) The nature of the Periodic Monitoring that may be readily implemented for the emission unit; (11) The extent to which such Periodic Monitoring would directly address the applicable requirements; (12) The nature of Periodic Monitoring commonly required for similar emission units at other facilities and in similar circumstances; (13) The interaction or relationship between the different measures in the Periodic Monitoring for an emission unit; and (14) The feasibility and reasonableness of requiring additional measures in the Periodic Monitoring for an emission unit in light of other relevant considerations.¹⁸

CHAPTER IV – CHANGES FROM PREVIOUSLY ISSUED CAAPP PERMITS

4.1 Major Changes Summary

This renewal CAAPP draft is presented in a new format. The new format is the result of recommendations by the USEPA, comments made by sources, and interactions with the public.

	<i>Previous CAAPP Permit Layout</i>	<i>New CAAPP Permit Layout</i>
Section 1	Source Identification	Source Information
Section 2	List Of Abbreviations/Acronyms	General Permit Requirements
Section 3	Insignificant Activities	Source Requirements
Section 4	Significant Emission Units	Emission Unit Requirements
Section 5	Overall Source Conditions	Title I Requirements
Section 6	Emission Control Programs	Insignificant Activities
Section 7	Unit Specific Conditions	Other Requirements
Section 8	General Permit Conditions	State Only Requirements
Section 9	Standard Permit Conditions	---
Section 10	Attachments	Attachments

4.2 Specific Permit Condition Changes

The tanks at the source are now subject to 40 CFR Part 63 Subpart BBBBBB for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities. The applicable conditions from 40 CFR Part 63 Subpart BBBBBB are included in this renewal permit.

Section 4.1 and 4.2

Tanks 204, 149, 105 and 106 were dismantled in 2005 and they are removed from the renewed permit.

Endnotes

¹ The federal PSD program, 40 CFR 52.21, applies in Illinois. The Illinois EPA administers PSD permitting for major projects in Illinois pursuant to a delegation agreement with USEPA.

² Illinois has a state nonattainment NSR program, pursuant to state rules, Major Stationary Sources Construction and Modification ("MSSCM"), 35 IAC Part 203, which have been approved by USEPA as part of the State Implementation Plan for Illinois.

³ The incorporation, or carry-over, of terms or conditions from previous Title I permits into Title V permits typically does not occur on a wholesale basis. Recognizing that construction permits may frequently contain obsolete or extraneous terms and conditions, USEPA has emphasized that only "environmentally significant terms" from previous preconstruction permits must be carried over into Title V permits. See, White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995. Therefore, certain T1 terms and conditions have not been carried over from these SIP approved permits for reasons that are explained below.

⁴ Among other things, USEPA observed that the streamlining benefits can consist of "reduced cost and administrative complexity, and continued compliance flexibility...". *White Paper 2*, page 41.

⁵ See, *In the Matter of Tesoro Refining and Marketing*, Petition No. IX-2004-6, Order Denying in Part and Granting in Part Petition for Objection to Permit, at page 8 (March 15, 2005); see also, White Paper 2 at page 39 ("reference must be detailed enough that the manner in which any referenced materials applies to a facility is clear and is not reasonably subject to misinterpretation").

⁶ The Order provides that permit authorities must ensure the following: "(1) referenced documents be specifically identified; (2) descriptive information such as the title or number of the document and the date of the document be included so that there is no ambiguity as to which version of the document is being referenced; and (3) citations, cross references, and incorporations by reference are detailed enough that the manner in which any referenced material applies to a facility is clear and is not reasonably subject to misinterpretation." See, Petition Response at page 43, citing White Paper 2 at page 37.

⁷ See, White Paper 2 at page 39.

⁸ Nothing in USEPA guidance, including the White Paper 2 or previous orders responding to public petitions, supports the notion that permit authorities incorporating a document by reference must also restate contents of a given plan in the body of the Title V permit. Such an interpretation contradicts USEPA recognition that permit authorities need not restate or recite an incorporated document so long as the document is sufficiently described. White Paper 2 at page 39; see also, *In the matter of Consolidated Edison Co. of New York, Inc., 74th St. Station*, Petition No. II-2001-02, Order Granting in Part and Denying in Part Petition for Objection to Permit at page 16 (February 19, 2003).

⁹ This approach is consistent with USEPA guidance, which has previously embraced a similar approach to certain SSM plans. See, Letter and Enclosures,

dated May 20, 1999, from John Seitz, Director of Office of Air Quality Planning and Standards, to Robert Hodanbosi and Charles Lagges, STAPPA/ALAPCO, pages 9-10 of Enclosure B.

¹⁰ Each incorporated plan addressed by this Section of the Statement of Basis is part of the source's permit file. As such, these plans are available to any person interested in viewing the contents of a given plan may do so at the public repository during the comment period or, alternatively, may request a copy of the same from the Illinois EPA under the Freedom of Information Act. See also 71 FR 20447.

¹¹ The provisions of the Act for Periodic Monitoring in CAAPP permits reflect parallel requirements in the federal guidelines for State Operating Permit Programs, 40 CFR 70.6(a)(3)(i)(A), (a)(3)(i)(B), and (c)(1).

¹² Section 39.5(7)(p)(i) of the Act also provides that a CAAPP permit shall contain "Compliance certification, testing, monitoring, reporting and record keeping requirements sufficient to assure compliance with the terms and conditions of the permit."

¹³ The classic example of regulatory standards for which Periodic Monitoring requirements must be established in a CAAPP permit are state emission standards that pre-date the 1990 Clean Air Act Amendments that were adopted without any associated compliance procedures. Periodic Monitoring must also be established in a CAAPP permit when standards and limits are accompanied by compliance procedures but those procedures are determined to be inadequate to assure compliance with the applicable standards or limits.

¹⁴ Another example of emission standards for which requirements must be established as part of Periodic Monitoring is certain NSPS standards that require initial performance testing but do not require periodic testing or other measures to address compliance with the applicable limits on a continuing basis.

¹⁵ The need to establish Monitoring requirements as part of Periodic Monitoring when existing compliance procedures are determined to be inadequate, as well as when they are absent, was confirmed by the federal appeals court in *Sierra Club v. Environmental Protection Agency*, 536 F.3d 673, 383 U.S. App. D.C. 109.

¹⁶ The need to establish Monitoring requirements as part of Periodic Monitoring is also confirmed in USEPA's Petition Response. USEPA explains that "...if there is periodic monitoring in the applicable requirements, but that monitoring is not sufficient to assure compliance with permit terms and conditions, permitting authorities must supplement monitoring to assure such compliance." Petition Response, page 6.

¹⁷ The test for the adequacy of "Periodic Monitoring" is a context-specific determination, particularly whether the provisions in a Title V permit reasonably address compliance with relevant substantive permit conditions. 40 CFR 70.6(c)(1); see also 40 CFR 70.6(a)(3)(i)(B); see also, *In the Matter of CITGO Refinery and Chemicals Company L.P.*, Petition VI-2007-01 (May 28, 2009); see also, *In the Matter of Waste Management of LA. L.L.C. Woodside Sanitary Landfill & Recycling Center, Walker, Livingston Parish, Louisiana*, Petition VI-2009-01 (May 27, 2010); see also, *In the Matter of Wisconsin Public Service*

Corporation's JP Pulliam Power Plant, Petition V-2009-01 (June 28, 2010).

¹⁸ A number of these factors are specifically listed by USEPA in its Petition Response. USEPA also observes that the specific factors that it identifies in its Petition Response with respect to Periodic Monitoring provide "...the permitting authority with a starting point for its analysis of the adequacy of the monitoring; the permitting authority also may consider other site-specific factors." Petition Response, page 7.